



PATENT

Case Docket No. FRIPEP.005C1
Date: October 7, 2002

TECH CENTER 1600.2500

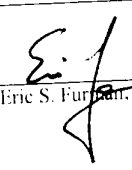
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Applicant(s) : Anders Vahlne
Appl. No. : 10/072,783
Filed : February 8, 2002
For : PROTEIN POLYMERIZATION
INHIBITORS AND METHODS
OF USE
Examiner : Chih Min Kam
Group Art Unit : 1653

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) Eric S. Furman, Ph.D., Reg. No. 45,664


TRANSMITTAL LETTER

United States Patent and Trademark Office
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Arlington, VA 22202

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 with seventy-eight (78) references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.


Eric S. Furman, Ph.D.
Registration No. 45,664
Attorney of Record



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AND METHODS OF USE)
Examiner : Chih Min Kam)

INFORMATION DISCLOSURE STATEMENT

United States Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Enclosed is form PTO-1449 listing references that are also enclosed. A copy of the Bachem Catalog, cited on form PTO-1449 as **reference number 79 is not enclosed**. This catalog was cited by the Examiner in U.S. Application No. 09/370,368, now U.S. Patent No. 6,258,932, however, applicant has been unable to obtain a copy for submission. This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

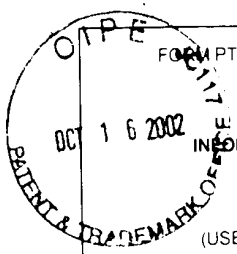
Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 10/7/02

By: [Signature]
Eric S. Furman, Ph.D.
Registration No. 45,664
Attorney of Record
Customer No. 20,995

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FORM PTO-1449

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ATTY DOCKET NO
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APPLICATION NO
10/072,783

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APPLICANT
Anders Vahlne

FILING DATE
February 8, 2002

GROUP
1653

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	6,455,670	09/24/02	van der Spoel et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	2	WO 90/04390	05/01/90	WIPO				
	3	0 421 074 A1	04/01/91	Europe				
	4	2 668 488 A1	04/30/92	France				
	5	WO 92/20795	11/01/92	WIPO				
	6	WO 96/27386	09/01/96	WIPO				
	7	WO 96/28162	09/19/96	WIPO				
	8	WO 96/35714	11/01/96	WIPO				
	9	WO 98/09985	03/01/98	WIPO				
	10	WO 98/35062	08/01/98	WIPO				
	11	0 894 855 A2	02/03/99	Europe				
	12	WO 99/09056	02/25/99	WIPO				
	13	WO 99/09985	03/04/99	WIPO				
	14	0 900 566 A1	03/10/99	Europe				
	15	WO 00/09158	02/01/00	WIPO				
	16	WO 01/10456	02/15/01	WIPO				
	17	WO 01/10457	02/15/01	WIPO				

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

EXAMINER INITIAL		
	18	Abdel-Meguid et al., "An orally bioavailable HIV-1 protease inhibitor containing an imidazole-derived peptide bond replacement: Crystallographic and pharmacokinetic analysis," <i>Biochemistry</i> , 33(39):11671-11677 (1994).
	19	Allured et al., "Structure of exotoxin A of pseudomonas aeruginosa at 3.0- angstrom resolution," <i>Proc Natl Acad Sci USA</i> , 83(5):1320-1324 (1986).
	20	Armstrong et al., "A phase 1 study of chemically synthesized verotoxin (Shiga-like toxin) Pk-trisaccharide receptors attached to chromosorb for preventing hemolytic-uremic syndrome," <i>J. Infectious Diseases</i> , J14 171:1042-1045 (1995)
	21	Armstrong and Peppler, "Maintenance of biological activity of pertussis toxin radioiodinated while bound to fetuin- 14200-14205, <i>J. Biol. Chem.</i> , 262(15):12941-12944 (1987)

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OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

EXAMINER INITIAL		
	22	Ashkenazi et al., "Safety and antitumor activity of recombinant soluble Apo2 ligand," <i>J Clinical Investigation</i> , 104(2):155-162 (1999).
	23	Bai et al., "Characterization of the interaction of cryptophycin 1 with tubulin: binding in the vinca domain, competitive inhibition of dolastatin 10 binding, and an unusual aggregation reaction," <i>Cancer Research</i> , 56:4398-4406 (1996).
	24	Barger et al., "Tumor necrosis factors α and β protect neurons against amyloid β -peptide toxicity: Evidence for involvement of a κ B-binding factor and attenuation of peroxide and Ca^{2+} accumulation," <i>Proc Natl Acad Sci USA</i> , 92:9328-9332 (1995).
	25	Brandhuber et al., "Mapping the enzymatic active site of pseudomonas aeruginosa exotoxin A," <i>Proteins</i> , 3(3):146-154 (1988).
	26	Choe et al., "The crystal structure of diphtheria toxin," <i>Nature</i> , 357(6375):216-222 (1992).
	27	Chothia and Janin, "Principles of protein-protein recognition," <i>Nature</i> , 256(5520):705-708 (1975).
	28	Conner et al., "Selective Proteasome Inhibition Attenuates Experimental Polyarthritis Via Inhibition of Nuclear Transcription Factor κ B ($\text{NF-}\kappa\text{B}$) Activation," <i>Arthritis and Rheumatism, Abst. Suppl.</i> , 40(9), (1997).
	29	Conner et al., "Proteasome Inhibition Attenuates Nitric Oxide Synthase Expression, VCAM-1 Transcription and the Development of Chronic Colitis," <i>Journal of Pharmacology and Exp Therapeutics</i> , 282(3):1615-1622, 1997.
	30	Durso et al., "The antimitotic tripeptide hemiasterlin," <i>Proc Am Assoc Cancer Res Annual Meeting</i> , Vol. 40, p. 286, March 1999.
	31	Erickson et al., "Design, activity, and 2.8 Å crystal structure of a C2 symmetric inhibitor complexed to HIV-1 protease," <i>Science</i> , 249(4968):527-533 (1990).
	32	Gamble et al., "Structure of the carboxyl-terminal dimerization domain of the HIV-1 capsid protein," <i>Science</i> , 278:849-853 (1997).
	33	Glenner et al., "Alzheimer's disease: initial report of the purification and characterization of a novel cerebrovascular amyloid protein," <i>Biochem Biophys Res Commun</i> , 120(3):885-890 (1984).
	34	Grannelli-Piperno, et al., "Efficient Interaction of HIV-1 with Purified Dendritic Cells via multiple chemokine Coreceptors," <i>J Exp Med</i> , 184:2433-2438 (1996).
	35	Hall et al., "Substituted 4-hydroxyproline di- and tri-peptides as cytotoxic agents," <i>Amino Acids</i> , 16(1):79-89 (1999).
	36	Head et al., "Preparation of VT1 and VT2 hybrid toxins from their purified dissociated subunits," <i>J Biol Chem</i> , 266(6):3617-3621 (1991).
	37	Henderson et al., "Gag proteins of the highly replicative MN strain of human immunodeficiency virus type 1: posttranslational modifications, proteolytic processing, and complete amino acid sequences," <i>Journal of Virology</i> , 66(4):1856-1865 (1992).
	38	Hewlett et al., "Induction of a novel morphological response in Chinese hamster ovary cells by pertussis toxin," <i>Infect. Immun.</i> , 40(3):1198-1203 (1983).
	39	Hilbich et al., "Substitutions of hydrophobic amino acids reduce the amyloidogenicity of alzheimer's disease β A4 peptides," <i>J Mol Biol</i> , 228:460-473 (1992).
	40	Huang et al., "The role of DNA in the mechanism of $\text{NF-}\kappa\text{B}$ dimer formation: crystal structures of the dimerization domains of the p50 and p65 subunits," <i>Structure</i> , 5(11):1427-1436 (1997).
	41	Hwang et al., "Identification of the envelope V3 loop as the primary determinant of cell tropism in HIV-1," <i>Science</i> , 253:71-74 (1991).
	42	Ito et al., "Isolation and some properties of A and B subunits of Vero toxin 2 and in vitro formation of hybrid toxins between subunits of Vero toxin 1 and Vero toxin 2 from Escherichia coli O157:H7," <i>Microb Pathog</i> , 5(3):189-195 (1988).
	43	Jarret and Lansbury, "Seeding 'One-dimensional crystallization' of amyloid: a pathogenic mechanism in alzheimer's disease and scrapie?" <i>Cell</i> , 73:1055-1058 (1993).
	44	Kowalski et al., "Functional regions of the envelope glycoprotein of human immunodeficiency virus type I," <i>Science</i> , 237:1351-1355 (1987).

EXAMINER

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1653EXAMINER
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OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

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|----|---|
| 45 | Lassila et al., "A Role for Lys-His-Gly-NH ₂ in Avian and Murine B Cell Development," <i>Cell. Immun.</i> , 122:319-328, (1989). |
| 46 | Latimer et al., "The N-terminal domain of I κ B α Masks the nuclear localization signal(s) of p50 and c-Rel homodimers," <i>Mol. Cell Biol.</i> , 18(5):2640 (1998). |
| 47 | LeVine, "Thioflavine T interaction with synthetic Alzheimer's disease beta-amyloid peptides: detection of amyloid aggregation in solution," <i>Protein Science</i> , 2(3):404-410 (1993). |
| 48 | Lingwood, "Role of verotoxin receptors in pathogenesis," <i>Trends in Microbiology</i> , 4(4):147-153 (1996). |
| 49 | Lobet et al., "Site-specific alterations in the B oligomer that affect receptor-binding activities and mitogenicity of pertussis toxin," <i>J Exp Med</i> , 177(1):79-87 (1993). |
| 50 | Loosmore et al., "Characterization of pertussis toxin analogs containing mutations in B-oligomer subunits," <i>Infect Immun</i> , 61(6):2316-2324 (1993). |
| 51 | Louis et al., "Hydrophilic peptides derived from the transframe region of GaPol inhibit the HIV-1 protease," <i>Biochemistry</i> , 37(8):2105-2110 (1998). |
| 52 | Maldonado et al., "Experimental chemotherapy with combinations of ergosterol biosynthesis inhibitors in murine models of chagas' disease," <i>Antimicrobial Agents and Chemotherapy</i> , 37(6):1353-1359 (1993). |
| 53 | Malek et al., "I κ B α Functions through direct contacts with the nuclear localization signals and the DNA binding sequences of NF- α B," <i>J. Biol. Chem.</i> , 273(39):25427-25435 (1998). |
| 54 | Martin, "Fast-acting slow viruses," <i>Nature</i> , 345:572-573 (1990). |
| 55 | Masters et al., "Amyloid plaque core protein in Alzheimer disease and Down syndrome," <i>Proc Natl Acad Sci USA</i> , 82(12):4245-4249 (1985). |
| 56 | Memar O. et al., "Antiviral Agents in Dermatology; Current Status and Future Prospects," <i>International Journal of Dermatology</i> , 34(9):597-606 (1995). |
| 57 | Merritt, et al., "Surprising leads for a cholera toxin receptor-binding antagonist: crystallographic studies of CTB mutants," <i>Structure</i> , 3(6):561-570 (1995). |
| 58 | Miller, et al., "Antiviral activity of carbobenzoxy Di- and Tripeptides on measles virus," <i>Applied Microbiology</i> , 16(10):1489-1496 (1968). |
| 59 | Monks et al., "Feasibility of a high-flux anticancer drug screen using a diverse panel of cultured human tumor cell lines," <i>J. National Cancer Institute</i> , 83(11):757-766 (1991). |
| 60 | Mukaída, et al., "Novel insight into molecular mechanism of endotoxin shock: biochemical analysis of LPS receptor signaling in a cell-free system targeting NF- κ B and regulation of cytokine production/action through β ₂ integrin in vivo," <i>Journal of Leukocyte Biology</i> , 59(2):145-151 (1996). |
| 61 | Niedrig et al., "Inhibition of infectious human immunodeficiency virus type 1 particle formation by Gag protein derived peptides," <i>Journal of General Virology</i> , 75:1469-1474 (1994). |
| 62 | Owells et al., "Inhibition of tubulin-microtubule polymerization by drugs of the Vinca alkaloid class," <i>Cancer Res.</i> , 36(4):1499 (1976). |
| 63 | Palmer et al., "Type-specific neutralization of the human immunodeficiency virus with antibodies to env-encoded synthetic peptides," <i>Proc. Natl. Acad. Sci. USA</i> , 85(6):1932-1936 (1988). |
| 64 | Prusiner, "Some speculations about prions, amyloid, and Alzheimer's disease," <i>N. Engl. J. Med.</i> , 310(10): 661-663 (1984). |
| 65 | Prusiner, "Molecular biology of prion diseases," <i>Science</i> , 252(5012):1515-1522 (1991). |
| 66 | Rao et al., "3'-(p-azidobenzamido)taxol photolabels the N-terminal 31 amino acids of beta-tubulin," <i>J. Biol. Chem.</i> , 269(5):3132-3134 (1994). |
| 67 | Richards, "Inhibition of the aspartic proteinase from HIV-2," <i>FEBS Letters</i> , 253(1,2):214-216 (1989). |
| 68 | Sawada et al., "Identification of the fragment photoaffinity-labeled with azidodansyl-rhizoxin as Met-363-Lys0379 on beta-tubulin," <i>Biochem. Pharmacol.</i> , 45(7):1387-1394 (1993). |
| 69 | Sheha et al. "Synthesis of di- and tripeptide analogues containing α -ketoamide as a new core structure for inhibition of HIV-1 protease," <i>Eur. J. Med. Chem.</i> , 35(10):1887-894 (2000) |

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	70	Sigma, Peptide and Amino Acid Catalog , p. 27 and p. 70, Copyright 1995-96.
	71	Sixma et al., "Comparison of the B-pentamers of heat-labile enterotoxin and verotoxin-1: two structures with remarkable similarity and dissimilarity," <i>Biochemistry</i> , 32(1):191-198 (1993).
	72	Sixma et al., "Refined structure of Escherichia coli heat-labile enterotoxin, a close relative of cholera toxin," <i>J. Mol. Biol.</i> , 230(3):890-918 (1993).
	73	Stein et al., "Crystal structure of the cell-binding B oligomer of verotoxin-1 from E. coli," <i>Nature</i> , 355:748-750 (1992).
	74	Su et al., "The nontoxic tripeptide glycyl-prolyl-glycine amide inhibits the replication of human immunodeficiency virus type 1," <i>Journal of Human Virology</i> , 4(1):1-7 (2001).
	75	Su et al., "The tripeptide glycyl-prolyl-glycine amide does not affect the early steps of the human immunodeficiency virus type 1 replication," <i>Journal of Human Virology</i> , 4(1):8-15 (2001).
	76	Van Der Spoel et al., "Tripeptide Amides that Block Viral Infectivity and Methods of use Thereof," U.S. Patent Application Serial No. 09/938,806, filed August 24, 2001.
	77	Van Der Spoel et al., "Pentamer Peptide Amide, ALGPGNH ₂ , which Inhibits Viral Infectivity and Methods of Use Thereof," U.S. Patent Application Serial No. 10/217,933, filed August 12, 2002.
	78	Goobar-Larsson et al., "Molecules that Block Viral Infectivity and Methods of Use Thereof," U.S. Patent Application Serial No. 10/217,933, filed September 3, 2002.
	79	Bachem Catalog , Bachem Bioscience Inc. 1993, pages 28, 29, 34, 145, 267, 332, 333, 457, 535, 536, 541, 546 and 553.

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